CLAIMS

What is claimed is:

1. An apparatus for use in wireless communication, comprising:

an in-band system providing in-band wireless communication, wherein the in-band system has an active mode and a sleep mode; and

an out-of-band system providing out-of-band wireless communication, wherein the out-of-band system is coupled with the in-band system, and the out-of-band system receives an out-of-band wireless communication and activates the in-band system causing the in-band system to transition from the sleep mode to the activate mode.

2. The apparatus of claim 1, wherein the out-of-band system includes a controller, such that a least a portion of the out-of-band wireless communication is directed to the controller and the controller activates the in-band system causing the in-band system to transition from the sleep mode to the activate mode.

3. The apparatus of claim 2, wherein the controller further transmits an out-of-band communication.

4. The apparatus of claim 3, wherein the controller awaits an out-of-band wireless communication reply to the transmit out-of-band communication prior to activating the in-band system.

5. The apparatus of claim 1, wherein the out-of-band system further includes an out-of-band wireless receiver that receives the out-of-band wireless communication.

6. The apparatus of claim 1, wherein the out-of-band wireless communication is received over an out-of-band channel.

7. The apparatus of claim 6, wherein the out-of-band communication is received at a frequency spectrum different than an in-band wireless communication.

8. The apparatus of claim 1, wherein the in-band system is completely powered down when operating in the sleep mode.

9. The apparatus of claim 8, wherein the in-band system includes an in-band controller, such that the in-band controller is powered down when the in-band system is in the sleep mode.

10. A wireless communication device, comprising:

an in-band system; and

an out-of-band system coupled with the in-band system, wherein the out-of-band system activates the in-band system when the out-of-band system wirelessly receives an out-of-band communication, such that the in-band system provides wirelessly in-band communication.

11. The wireless communication device of claim 10, wherein the in-band system has a sleep mode and an active mode, such that the in-band system transitions from the sleep mode to the active mode when activated by the out-of-band system.

12. The wireless device of claim 11, further comprising:

an access point wirelessly coupled with the out-of-band system, wherein the access point generates the out-of-band wireless communication.

13. The wireless device of claim 11, further comprising:

a host processor that is powered down when the in-band system is in the sleep mode.

14. A method for use in wireless communications, comprising:

maintaining an in-band system in a sleep mode;

receiving a wireless out-of-band communication;

activating the in-band system in response to the out-of-band communication; and

transitioning the in-band system from the sleep mode to an active mode.

15. The method of claim 14, wherein the receiving the out-of-band communication includes receiving the out-of-band communication through an out-of-band system.

16. The method of claim 14, wherein the maintaining the in-band system in the sleep mode includes completely powering down the in-band system.

17. The method of claim 14, further comprising verifying a target device of the out-of-band communication, and initiating the activating of the in-band system when the target device is verified as the intended target.

18. The method of claim 17, wherein the verifying the target device is the intended target includes transmitting an out-of-band identification request; and

receiving an out-of-band reply containing an identification.

19. The method of claim 14, further comprising:

transitioning the in-band system from the active mode to the sleep mode following reception of in-band communications.

20. The apparatus of claim 19, wherein the out-of-band communication is modulated with a different modulation scheme than a modulation scheme for an in-band wireless communication.